

REMARKS/ARGUMENTS

Reconsideration of the application in view of the above amendments and following remarks is requested. Claims 32-38, 42, and 56-60 are now in the case. Claims 36, 37, 38, and 42 have been amended. Claim 60 has been added. Claims 1-31, 39-41, and 43-55 have been canceled. No new matter has been added.

Claims 36, 37, 38, and 42 have been amended for purposes of clarity. Amended claim 36 recites a "DNA segment" to provide antecedent basis for the use of this term in claim 42. Claims 37 and 38 have been similarly amended in view of their dependence on claim 36. Support for this amendment is found within the specification as filed, such as at pages 5, 8, 10, and elsewhere. In addition, claim 36 has been amended to be an independent claim by incorporating language from claim 32, from which claim 36 previously depended. Claim 42 has been amended to recite that the recovered polypeptide is the polypeptide encoded by the DNA segment. Support for this amendment is found throughout the specification as filed, such as at pages 31-37 and in the Examples.

Support for new claim 60 is found within the specification as filed, such as at page 25, lines 1-6 and in Table 1 on page 13. Nucleotides 736 through 1110 of SEQ ID NO:6 encode residues 246-370 of SEQ ID NO:2. New claim 60 is believed to be drawn to the elected invention.

In view of the cancellation claims 1-31, 39-41, and 43-55, Applicants are filing herewith a Request to Correct Inventorship.

A replacement sequence listing CRF is enclosed. The replacement CRF lists 53 sequences. The content of the replacement CRF is believed to be identical to the paper copy originally filed in this application.

The specification has been amended to correct obvious typographical errors and clerical errors, to correct formatting errors (including replacement of the symbol ":" with the Greek letter μ), and to capitalize trademarks. In addition, page 12 has been amended at line 3 to correct a typographical error by replacing "259" with "249". This correction is consistent with and supported by the remainder of the specification, for example at page 11, lines 35-37; page 12, lines 4-6; page 13; and page 71, lines 9-10. Finally, the specification has been amended to reflect changes in the numbering of the sheets of the replacement drawings filed herewith.

The replacement sheets of drawings filed herewith have been renumbered as Fig. 1A - Fig. 1H. The original seven sheets of drawings have been repaginated to accommodate the figure numbering, resulting in eight sheets.


Claims 36-38, 42, and 57-59 stand rejected under 35 U.S.C. § 112, second paragraph. The Office believes that claim 36 is indefinite in the recitation of "DNA polynucleotide," and that claim 42 is indefinite in the recitation of "DNA segment" and "a polypeptide."

This rejection is believed to be overcome by the amendments made herein. Amendment of claim 36 removes the term "polynucleotide" and replaces it with "segment."

Claim 42 has been amended to clarify the identity of the polypeptide that is recovered. Claims 37-38 and 57-59 are made definite by the amendments to the independent claims. In view of these amendments, reconsideration and withdrawal of the rejection under § 112, second paragraph are requested.

Applicants believe that each objection and rejection has been addressed and overcome. Reconsideration of the application and its allowance are requested. If for any reason the Examiner feels that a telephone conference would expedite prosecution of the application, the Examiner is invited to telephone the undersigned at (206) 442-6673.

Respectfully Submitted,



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Enclosures:

- Amendment Fee Transmittal (in duplicate)
- Request to Correct Inventorship (in duplicate)
- Replacement Drawing Sheets (Figs. 1A-1H)
- Diskette
- Postcard

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49	0.75				L =====
50	1.32				Y =====
51	1.32				R =====
52	1.55				R =====
53	1.63				D =====
54	1.17				E =====
55	0.42				T =====
56	0.42				I =====
57	-0.08			= Q	
58	0.02			V	
59	0.32			K ===	
60	-0.10			= G	
61	-0.10			= N	
62	-0.57			===== G	
63	-0.52			===== Y	
64	-0.55			===== V	
65	-0.05			Q	
66	-0.08			= S	
67	0.17			P ==	
68	0.17			R ==	
69	0.17			F ==	
70	0.18			P ==	
71	-0.32			=== N	
72	0.60			S =====	
73	0.63			Y =====	
74	0.30			P ===	
75	-0.05			R	
76	-0.37			===== N	
77	-0.43			===== L	
78	-1.50		=====	L	
79	-1.03		=====	L	
80	-1.03		=====	T	
81	-0.82		=====	W	
82	-0.47		=====	R	
83	-0.37		=====	L	
84	0.70			H =====	
85	0.23			S ==	
86	0.47			Q =====	
87	1.05			E =====	
88	0.70			N =====	
89	0.70			T =====	
90	-0.10			= R	
91	-0.38			===== I	
92	-0.73			===== Q	
93	-0.73			===== L	
94	-0.40			===== V	
95	-0.40			===== F	
96	-0.52			===== D	
97	-0.27			===== N	
98	-0.15			= Q	
99	-0.15			= F	
100	0.32			G ===	
101	0.20			L ==	

Fig. 1B

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102 1.12
 103 1.15
 104 1.95
 105 1.15
 106 0.48
 107 1.07
 108 0.18
 109 0.65
 110 -0.27
 111 -0.22
 112 0.45
 113 -0.30
 114 0.58
 115 0.58
 116 0.70
 117 1.00
 118 1.00
 119 1.18
 120 0.73
 121 0.17
 122 0.17
 123 -0.18
 124 -0.18
 125 -0.12
 126 0.33
 127 -0.17
 128 -0.03
 129 0.27
 130 -0.32
 131 0.18
 132 0.18
 133 0.50
 134 0.67
 135 0.67
 136 1.25
 137 0.45
 138 0.45
 139 0.75
 140 1.25
 141 1.18
 142 0.72
 143 1.05
 144 0.25
 145 0.70
 146 -0.10
 147 -0.10
 148 -0.55
 149 -0.08
 150 0.27
 151 0.27
 152 1.07
 153 0.75
 154 0.75

E =====
 E =====
 A =====
 E =====
 N =====
 D =====
 I ==
 C =====
 == R
 == Y
 D =====
 == F
 V =====
 E =====
 V =====
 E =====
 D =====
 I =====
 S =====
 E ==
 T ==
 == S
 == T
 = I
 I ==
 == R
 G
 R ==
 == W
 C ==
 G ==
 H =====
 K =====
 E =====
 V =====
 P =====
 P =====
 R =====
 I =====
 K =====
 S =====
 R =====
 T ==
 N =====
 = Q
 = I
 == K
 = I
 T ==
 F ==
 K =====
 S =====
 D =====

Fig. 1C



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155	0.00		D
156	-0.13		= Y
157	-0.13		= F
158	-0.63	=====	V
159	-0.25	===	A
160	-0.25	===	K
161	0.50		P =====
162	0.28		G ===
163	-0.60	=====	F
164	-0.98	=====	K
165	-0.93	=====	I
166	-0.82	=====	Y
167	-1.62	=====	Y
168	-0.82	=====	S
169	0.07		L =
170	0.03		L
171	0.02		E
172	0.32		D ===
173	0.53		F =====
174	-0.05		= Q
175	-0.63	=====	P
176	-0.17	==	A
177	0.30		A ===
178	0.23		A ==
179	0.35		S =====
180	0.27		E ===
181	0.85		T =====
182	0.85		N =====
183	0.10		w =
184	0.10		E =
185	0.12		S =
186	0.33		V ===
187	-0.47	=====	T
188	-1.08	=====	S
189	-0.83	=====	S
190	-1.02	=====	I
191	-1.02	=====	s
192	-1.45	=====	G
193	-1.12	=====	V
194	-0.50	=====	S
195	-0.50	=====	Y
196	-0.20	==	N
197	-0.50	=====	S
198	-0.18	==	P
199	0.28		S ===
200	0.23		V ==
201	0.17		T ==
202	-0.18	==	D
203	-0.23	==	P
204	-0.25	===	T
205	-0.25	===	L
206	-0.33	===	I
207	-0.57	=====	A

Fig. 1D



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208	0.23
209	1.03
210	1.62
211	0.82
212	0.82
213	1.62
214	0.70
215	0.70
216	0.13
217	0.18
218	0.77
219	0.77
220	0.88
221	0.08
222	0.65
223	0.52
224	-0.40
225	-0.87
226	-0.57
227	0.23
228	-0.22
229	0.00
230	0.45
231	0.92
232	1.42
233	0.62
234	1.07
235	1.27
236	1.02
237	0.13
238	-0.67
239	0.13
240	-0.43
241	-0.47
242	0.25
243	0.65
244	1.45
245	0.95
246	1.52
247	1.57
248	1.08
249	0.98
250	0.98
251	1.48
252	1.48
253	1.48
254	1.97
255	1.80
256	1.80
257	1.00
258	1.00
259	1.45
260	0.65

	D ==
	A =====
	L =====
	D =====
	K =====
	K =====
	I =====
	A =====
	E =
	F ==
	D =====
	T =====
	V =====
	E =
	D =====
	L =====
=====	L
=====	K
=====	Y
	F ==
==	N
	P
	E =====
	S =====
	W =====
	Q =====
	E =====
	D =====
	L =====
	E =
=====	N
	M =
=====	Y
=====	L
	D ==
	T =====
	P =====
	R =====
	Y =====
	R =====
	G =====
	R =====
	S =====
	Y =====
	H =====
	D =====
	R =====
	K =====
	S =====
	K =====
	V =====
	D =====
	L =====

Fig. 1E



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261	0.93			D	=====
262	0.93			R	=====
263	1.73			L	=====
264	1.15			N	=====
265	1.15			D	=====
266	1.95			D	=====
267	1.93			A	=====
268	1.48			K	=====
269	0.82			R	=====
270	0.83			Y	=====
271	0.33			S	=====
272	0.33			C	=====
273	0.35			T	=====
274	0.32			P	=====
275	0.53			R	=====
276	0.35			N	=====
277	0.38			Y	=====
278	-0.42		=====	S	
279	0.05			V	=
280	0.53			N	=====
281	0.98			I	=====
282	0.93			R	=====
283	1.40			E	=====
284	1.40			E	=====
285	0.82			L	=====
286	0.35			K	=====
287	-0.40		=====	L	
288	-0.35		=====	A	
289	-1.27	=====		N	
290	-1.38	=====		V	
291	-1.30	=====		V	
292	-0.83	=====		F	
293	-0.75	=====		F	
294	-0.80	=====		P	
295	-0.68	=====		R	
296	-0.52	=====		C	
297	-0.48	=====		L	
298	-0.48	=====		L	
299	-0.48	=====		V	
300	-0.18	==		Q	
301	0.12			R	=
302	0.40			C	=====
303	0.20			G	==
304	-0.30		==	G	
305	-0.30		==	N	
306	-0.87	=====		C	
307	-0.93	=====		G	
308	-1.22	=====		C	
309	-1.02	=====		g	
310	-1.58	=====		T	
311	-0.92	=====		V	
312	-0.30	==		N	
313	-0.40	=====		W	

Fig. 1F



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314 -0.22
315 -0.42
316 0.18
317 -0.27
318 -0.32
319 0.35
320 0.35
321 0.27
322 0.73
323 1.18
324 1.20
325 0.62
326 1.18
327 1.18
328 0.38
329 -0.08
330 -0.52
331 0.07
332 -0.43
333 -0.18
334 0.03
335 -0.30
336 0.62
337 0.62
338 1.12
339 1.12
340 1.70
341 1.92
342 1.92
343 1.35
344 0.63
345 0.55
346 -0.25
347 -0.42
348 -0.42
349 -0.65
350 -0.40
351 -0.62
352 0.18
353 0.35
354 0.17
355 0.97
356 1.43
357 1.57
358 1.57
359 1.48
360 0.87
361 0.20
362 -0.14
363 0.19
364 0.30
365 0.58
366 0.99

== R
==== S
C ==
=== T
=== C
N ====
S ====
G ===
K =====
T =====
V =====
K =====
K =====
Y =====
H =====
= E
===== V
L =
===== Q
== F
E
=== P
G =====
H =====
I =====
K =====
R =====
R =====
G =====
R =====
A =====
K =====
=== T
===== M
===== A
===== L
===== V
===== D
I ==
Q =====
L ==
D =====
H =====
h =====
E =====
R =====
C =====
D ==
= C
I ==
C =====
S =====
S =====

Fig. 1G



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367	1.77
368	0.00
369	0.00
370	0.00

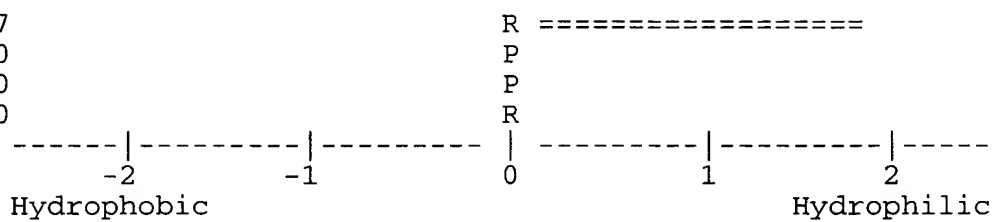


Fig. 1H